AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-14. (cancelled)

15. (currently amended) An apparatus (1) for making a flight safe under instrument flying conditions and outside instrument flying infrastructures, the apparatus being on board or being capable of being mounted on board a rotary wing aircraft, the apparatus (1) comprising:

means (3) for acquiring parameters relating to the aircraft and to the environment outside the aircraft including determining the position of the aircraft in three-dimensional space;

display means (6); and

a navigation calculator (8) including processing unit configured to operate as an interference calculator (2), ~~associated with~~ a first memory (4) associated with the interference calculator (2) for storing a constructed route, and ~~with~~ a second memory (5) containing a model of a terrain to be overflown;

wherein the ~~apparatus (1)~~ navigation calculator (8) is configured to ~~implement the method according to claim 9~~

a) construct a route for the aircraft, including at least initial route segments,

b) cause the aircraft to follow the route,

c) at least in part while following the route, calculate an interference between the route, a model of a terrain overflown by the aircraft, and parameters relating to the aircraft and to the environment outside the aircraft, and

d) from said interference, determine a safe route and communicate the safe route via a display screen,

wherein, in order for the aircraft to fly in all weathers and at any location, while the aircraft follows the initial route segments, and independently of any instrument flight infrastructure, the apparatus calculates the interference on board the aircraft by acquiring the parameters relating to the aircraft and to the environment outside the aircraft by acquiring additional parameters relating to the terrain overflown, and automatically performing the following operations:

α) using the acquired parameters relating to the aircraft and to the environment outside the aircraft, and the acquired additional parameters relating to the terrain overflown to verify the safety of an actual trajectory of the aircraft,

β) using the acquired parameters relating to the aircraft and to the environment outside the aircraft to verify the safety of the actual trajectory relative to any other aircraft, and

γ) providing, on board the aircraft, assistance in perception by presenting the interference, the acquired parameters relating to the aircraft and to the environment outside the aircraft, and the acquired additional parameters relating to the terrain overflown, and

wherein the apparatus (1) further includes at least one interactive graphics route-construction tool (7) coupled to the interference calculator (2) that serves, when actuated by an operator, to display a result on the display means (6) enabling the safe route to be constructed progressively, ~~which~~ the route ~~is~~ being stored in the first memory (4), and a piloting system (9) connected to the interactive tool (7) and to the calculator (8) via a connection (10), the piloting system (9) including a piloting screen.

16. (previously presented) The apparatus according to claim 15, further comprising:

at least one means (12) for providing assistance in perceiving the environment outside the aircraft.

17-23. (cancelled).